

IAP5 Rec'd PCT/PTO 31 JUL 2006

SEQUENCE LISTING

<110> Fogh, Jens
 Irani, Meher
 Andersson, Claes
 Weigelt, Cecilia
 Christer Möller
 Pia Hydén

<120> PRODUCTION AND PURIFICATION OF ARYL
 SULFATASE A

<130> 33686PC01

<150> PA200400144

<151> 2004-01-30

<150> US 60/540,061

<151> 2004-01-30

<160> 4

<170> FastSEQ for Windows Version 4.0

<210> 1

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<212> DNA

<213> Homo Sapiens

<400> 1

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<210> 2

<211> 507

<212> PRT

<213> Homo Sapiens

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Tyr Gly Asp Leu Gly Cys Tyr Gly His Pro Ser Ser Thr Thr Pro Asn
          35          40          45
Leu Asp Gln Leu Ala Ala Gly Gly Leu Arg Phe Thr Asp Phe Tyr Val
          50          55          60
Pro Val Ser Leu Cys Thr Pro Ser Arg Ala Ala Leu Leu Thr Gly Arg
65          70          75          80
Leu Pro Val Arg Met Gly Met Tyr Pro Gly Val Leu Val Pro Ser Ser
          85          90          95
Arg Gly Gly Leu Pro Leu Glu Glu Val Thr Val Ala Glu Val Leu Ala
          100          105          110
Ala Arg Gly Tyr Leu Thr Gly Met Ala Gly Lys Trp His Leu Gly Val
          115          120          125
Gly Pro Glu Gly Ala Phe Leu Pro Pro His Gln Gly Phe His Arg Phe
          130          135          140
Leu Gly Ile Pro Tyr Ser His Asp Gln Gly Pro Cys Gln Asn Leu Thr
145          150          155          160
Cys Phe Pro Pro Ala Thr Pro Cys Asp Gly Gly Cys Asp Gln Gly Leu
          165          170          175
Val Pro Ile Pro Leu Leu Ala Asn Leu Ser Val Glu Ala Gln Pro Pro
          180          185          190
Trp Leu Pro Gly Leu Glu Ala Arg Tyr Met Ala Phe Ala His Asp Leu
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Met Ala Asp Ala Gln Arg Gln Asp Arg Pro Phe Phe Leu Tyr Tyr Ala
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Ser His His Thr His Tyr Pro Gln Phe Ser Gly Gln Ser Phe Ala Glu
225          230          235          240
Arg Ser Gly Arg Gly Pro Phe Gly Asp Ser Leu Met Glu Leu Asp Ala
          245          250          255
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          260          265          270
Glu Thr Leu Val Ile Phe Thr Ala Asp Asn Gly Pro Glu Thr Met Arg
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Met Ser Arg Gly Gly Cys Ser Gly Leu Leu Arg Cys Gly Lys Gly Thr
          290          295          300
Thr Tyr Glu Gly Gly Val Arg Glu Pro Ala Leu Ala Phe Trp Pro Gly
305          310          315          320
His Ile Ala Pro Gly Val Thr His Glu Leu Ala Ser Ser Leu Asp Leu
          325          330          335
Leu Pro Thr Leu Ala Ala Leu Ala Gly Ala Pro Leu Pro Asn Val Thr
          340          345          350
Leu Asp Gly Phe Asp Leu Ser Pro Leu Leu Leu Gly Thr Gly Lys Ser
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Pro Arg Gln Ser Leu Phe Phe Tyr Pro Ser Tyr Pro Asp Glu Val Arg
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Gly Val Phe Ala Val Arg Thr Gly Lys Tyr Lys Ala His Phe Phe Thr
385          390          395          400
Gln Gly Ser Ala His Ser Asp Thr Thr Ala Asp Pro Ala Cys His Ala
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Ser Ser Ser Leu Thr Ala His Glu Pro Pro Leu Leu Tyr Asp Leu Ser
          420          425          430
Lys Asp Pro Gly Glu Asn Tyr Asn Leu Leu Gly Gly Val Ala Gly Ala
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Thr Pro Glu Val Leu Gln Ala Leu Lys Gln Leu Gln Leu Leu Lys Ala
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Gln	Leu	Asp	Ala	Ala	Val	Thr	Phe	Gly	Pro	Ser	Gln	Val	Ala	Arg	Gly
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<210> 3
 <211> 489
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<220>
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			20					25				30			
Gln	Leu	Ala	Ala	Gly	Gly	Leu	Arg	Phe	Thr	Asp	Phe	Tyr	Val	Pro	Val
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Ser	Leu	Xaa	Thr	Pro	Ser	Arg	Ala	Ala	Leu	Leu	Thr	Gly	Arg	Leu	Pro
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Val	Arg	Met	Gly	Met	Tyr	Pro	Gly	Val	Leu	Val	Pro	Ser	Ser	Arg	Gly
65				70					75						80
Gly	Leu	Pro	Leu	Glu	Val	Thr	Val	Ala	Glu	Val	Leu	Ala	Ala	Arg	
				85				90					95		
Gly	Tyr	Leu	Thr	Gly	Met	Ala	Gly	Lys	Trp	His	Leu	Gly	Val	Gly	Pro
			100					105					110		
Glu	Gly	Ala	Phe	Leu	Pro	Pro	His	Gln	Gly	Phe	His	Arg	Phe	Leu	Gly
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Ile	Pro	Tyr	Ser	His	Asp	Gln	Gly	Pro	Cys	Gln	Asn	Leu	Thr	Cys	Phe
	130					135					140				
Pro	Pro	Ala	Thr	Pro	Cys	Asp	Gly	Gly	Cys	Asp	Gln	Gly	Leu	Val	Pro
145					150					155					160
Ile	Pro	Leu	Leu	Ala	Asn	Leu	Ser	Val	Glu	Ala	Gln	Pro	Pro	Trp	Leu
				165				170						175	
Pro	Gly	Leu	Glu	Ala	Arg	Tyr	Met	Ala	Phe	Ala	His	Asp	Leu	Met	Ala
			180					185					190		
Asp	Ala	Gln	Arg	Gln	Asp	Arg	Pro	Phe	Phe	Leu	Tyr	Tyr	Ala	Ser	His
	195						200					205			
His	Thr	His	Tyr	Pro	Gln	Phe	Ser	Gly	Gln	Ser	Phe	Ala	Glu	Arg	Ser
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Gly	Arg	Gly	Pro	Phe	Gly	Asp	Ser	Leu	Met	Glu	Leu	Asp	Ala	Ala	Val
225					230					235					240
Gly	Thr	Leu	Met	Thr	Ala	Ile	Gly	Asp	Leu	Gly	Leu	Leu	Glu	Glu	Thr
				245					250					255	
Leu	Val	Ile	Phe	Thr	Ala	Asp	Asn	Gly	Pro	Glu	Thr	Met	Arg	Met	Ser
			260					265					270		
Arg	Gly	Gly	Cys	Ser	Gly	Leu	Leu	Arg	Cys	Gly	Lys	Gly	Thr	Thr	Tyr
	275						280					285			
Glu	Gly	Gly	Val	Arg	Glu	Pro	Ala	Leu	Ala	Phe	Trp	Pro	Gly	His	Ile
	290					295					300				
Ala	Pro	Gly	Val	Thr	His	Glu	Leu	Ala	Ser	Ser	Leu	Asp	Leu	Leu	Pro
305					310					315					320
Thr	Leu	Ala	Ala	Leu	Ala	Gly	Ala	Pro	Leu	Pro	Asn	Val	Thr	Leu	Asp
				325					330					335	

Gly Phe Asp Leu Ser Pro Leu Leu Leu Gly Thr Gly Lys Ser Pro Arg
 340 345 350
 Gln Ser Leu Phe Phe Tyr Pro Ser Tyr Pro Asp Glu Val Arg Gly Val
 355 360 365
 Phe Ala Val Arg Thr Gly Lys Tyr Lys Ala His Phe Phe Thr Gln Gly
 370 375 380
 Ser Ala His Ser Asp Thr Thr Ala Asp Pro Ala Cys His Ala Ser Ser
 385 390 395 400
 Ser Leu Thr Ala His Glu Pro Pro Leu Leu Tyr Asp Leu Ser Lys Asp
 405 410 415
 Pro Gly Glu Asn Tyr Asn Leu Leu Gly Gly Val Ala Gly Ala Thr Pro
 420 425 430
 Glu Val Leu Gln Ala Leu Lys Gln Leu Gln Leu Lys Ala Gln Leu
 435 440 445
 Asp Ala Ala Val Thr Phe Gly Pro Ser Gln Val Ala Arg Gly Glu Asp
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<210> 4
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 <212> PRT
 <213> Homo Sapiens

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 Gln Leu Ala Ala Gly Gly Leu Arg Phe Thr Asp Phe Tyr Val Pro Val
 35 40 45
 Ser Leu Cys Thr Pro Ser Arg Ala Ala Leu Leu Thr Gly Arg Leu Pro
 50 55 60
 Val Arg Met Gly Met Tyr Pro Gly Val Leu Val Pro Ser Ser Arg Gly
 65 70 75 80
 Gly Leu Pro Leu Glu Glu Val Thr Val Ala Glu Val Leu Ala Ala Arg
 85 90 95
 Gly Tyr Leu Thr Gly Met Ala Gly Lys Trp His Leu Gly Val Gly Pro
 100 105 110
 Glu Gly Ala Phe Leu Pro Pro His Gln Gly Phe His Arg Phe Leu Gly
 115 120 125
 Ile Pro Tyr Ser His Asp Gln Gly Pro Cys Gln Asn Leu Thr Cys Phe
 130 135 140
 Pro Pro Ala Thr Pro Cys Asp Gly Gly Cys Asp Gln Gly Leu Val Pro
 145 150 155 160
 Ile Pro Leu Leu Ala Asn Leu Ser Val Glu Ala Gln Pro Pro Trp Leu
 165 170 175
 Pro Gly Leu Glu Ala Arg Tyr Met Ala Phe Ala His Asp Leu Met Ala
 180 185 190
 Asp Ala Gln Arg Gln Asp Arg Pro Phe Phe Leu Tyr Tyr Ala Ser His
 195 200 205
 His Thr His Tyr Pro Gln Phe Ser Gly Gln Ser Phe Ala Glu Arg Ser
 210 215 220
 Gly Arg Gly Pro Phe Gly Asp Ser Leu Met Glu Leu Asp Ala Ala Val
 225 230 235 240
 Gly Thr Leu Met Thr Ala Ile Gly Asp Leu Gly Leu Leu Glu Glu Thr
 245 250 255
 Leu Val Ile Phe Thr Ala Asp Asn Gly Pro Glu Thr Met Arg Met Ser

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